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UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF CALIFORNIA

SAN JOSE DIVISION

EDWARD RINN and RENO CAPPELLI, on behalf of themselves and all others similarly situated, 　　　　　　Plaintiffs, 　　v. INTEL CORPORATION, 　　　　　　Defendant.	CASE NO. **CLASS ACTION COMPLAINT** **DEMAND FOR JURY TRIAL**

CLASS ACTION COMPLAINT

1   Plaintiffs Edward Rinn and Reno Cappelli ("Plaintiffs"), for their class action complaint,

2   allege upon personal knowledge as to themselves and their own actions, and upon information and

3   belief, including the investigation of counsel, as follows:

4   **NATURE OF ACTION**

5   1.   Plaintiffs assert this class action against Defendant Intel Corporation ("Intel") on

6   behalf persons who purchased or leased an Intel processor with x86-64x architecture (the "Intel

7   Processor"), either as a component of another product or separately.[1] Intel Processors can be found

8   in desktop, laptop, and cloud-based computers, and in servers and phones (cumulatively "Intel

9   Processor Computers"[2] or "IPCs").   Products containing Intel Processors are manufactured by

10   major technology companies such as Lenovo, Hewlett Packard, Dell, Apple, Asus and Acer, in

11   accordance with design specifications prepared by Defendant Intel.

12   2.   Processers are, in effect, the brains of computers. They handle the execution of

13   instructions given by software programs. Given the vast number of instructions involved in

14   virtually every program, processor speed is highly significant to technology consumers. Defendant

15   Intel has long marketed itself on the basis of its processor speed. Computers with processors

16   manufactured by Intel are clearly delineated as such on their packaging and/or marketing materials,

17   because of the impression consumers have of Intel Processors as being an asset.

18   3.   Unfortunately, all Intel Processors are defective because they were designed by

19   Defendant Intel in a way that allows hackers and malicious programs potential access to highly

20   secure information stored on the units in which they are installed. The Intel Processors expose

21   users to two types of security risk (the "Security Risks"), described further herein, which have been

22   dubbed Meltdown and Spectre by the technology community: "Meltdown," because it "melts

23   security boundaries which are normally enforced by the hardware," and "Spectre" because it its

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25   [1]   The Intel Processors include, but are not limited to, Intel Celeron, Intel Pentium, Intel Core
26   i3, Intel Core i5, Intel Core i7, Intel Core i9, Intel Xeon, Intel Xeon Phi, Intel Atom and Intel
      Itanium processors.

27   [2]   As used herein, the term "computer" includes not only desktops and laptops, but servers,
28   smartphones, tablets and all other smart devices incorporating computer processor technology.

1   root cause is speculative execution, and "because it is not easy to fix, it will haunt us for quite some

2   time."[3]

3   4.   To protect themselves from the Meltdown risk, users will have to apply a software

4   patch that will cause to a slowdown in the processor speed of between 5 and 30% (the "Slowdown

5   Problem").

6   5.   There is no complete software patch for the Spectre risk at this time, and it is not

7   presently known if any software patches necessary to fix Spectre will slow processer speed or by

8   how much.   A long term solution for the Spectre risk may require the development of new

9   hardware.

10   6.   In short, Defendant has not been able to offer an effective repair to its customers. A

11   patch that dramatically cuts processor performance is not a legitimate solution, nor is any patch that

12   does not fully address the security vulnerability.

13   7.   Defendant has admitted knowing of the design defect giving rise to the Security

14   Risks for at least 6 months, and in fact, knew or should have known of the design defect for much

15   longer. However, it continued to sell and distribute its processors without repair or disclosure of

16   the defect. The Intel Processors it sold and distributed were not of the quality represented, and

17   were not fit for their ordinary purposes.

18   8.   Plaintiffs would not have purchased the Intel Processors had they known of the

19   Security Risks, they would not have paid the prices they paid for the Intel Processors (or for

20   computer devices in which the Intel Processors were a component) that they would be subject to

21   the significant Security Risks as well as a slowdown in speed and thus decrease in quality and

22   value. Plaintiffs have suffered an ascertainable injury, and a loss of money or property as a result

23   of Defendant's wrongdoing.

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27   [3]   https://spectreattack.com//#faq-fix (website of Graz University of Technology, on the team
     which discovered the defects).

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CLASS ACTION COMPLAINT

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THE PARTIES

9.   Plaintiff Edward Rinn is an individual residing in Fairbanks, Alaska who, on October 30, 2015, purchased an iMac which contains an Intel Core i7 processor, a specific Intel Processor, for $4,099.00. The Intel Processor in his IPC has been exposed to the Security Risks described herein and will be impacted by the Slowdown Problem.

10.   Plaintiff Reno Cappelli is an individual residing in Henderson, Colorado who, on July 23, 2015, purchased a Microsoft Surface Pro 3 which contains an Intel i7 processor, a specific Intel Processor, for $1,399. The Intel Processor in his IPC has been exposed to the Security Risks described herein and will be impacted by the Slowdown Problem.

11.   Defendant Intel is a Delaware corporation with its principal place of business located at 2200 Mission College Boulevard, Santa Clara, California, 95054. Intel regularly conducts and transacts business in this District, as well as throughout the United States. Intel manufactures, markets, and sells processors used in personal computers and servers.

JURISDICTION AND VENUE

12.   This Court has jurisdiction over this action under the Class Action Fairness Act, 28 U.S.C. § 1332(d). There are at least 100 members in the proposed class, the aggregated claims of the individual class members exceed the sum or value of $5,000,000, exclusive of interest and costs, and this is a class action in which Defendant Intel and members of the proposed plaintiff classes, including the named Plaintiffs, are citizens of different states.

13.   Venue is proper in this District pursuant to 28 U.S.C. § 1391 because Intel has its principal place of business in this District, a substantial part of the events or omissions giving rise to Plaintiffs' claims occurred here, and Intel is a corporation subject to personal jurisdiction in this District and, therefore, resides here for venue purposes.

FACTUAL ALLEGATIONS

14.   Defendant Intel is one of the world's largest manufacturers of computer processors, and has been making the defective Intel Processors for more than 10 years. These processors have been installed in computers and phones made by industry heavy-hitters such as Lenovo, Hewlett Packard, Apple, Dell, Asus and Acer, in servers made by Intel itself and others, and sold directly as

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1   components so that consumers might install them in other devices, in the belief that they would

2   increase their processing speed. Defendant Intel has sold millions of Intel Processors.

3   15.   On January 2, 2018, it was reported that "a fundamental design flaw in Intel's

4   processor chips has forced a significant redesign of the Linux and windows kernels to defang the

5   chip-level security bug." Leyden, J. et al., *'Kernal memory leaking' Intel processor design flaw*

6   *forces Linux, Windows Redesign*, The Register, January 2, 2018.[4]

7   16.   On January 4, 2018, it was widely reported that the design defect exposed users to

8   two security vulnerabilities, called "Meltdown" and "Spectre" respectively, both of which exposed

9   users to significant security risks and for neither of which was there a reasonable and adequate

10   solution. Metz, *et al.*, *Researchers Discover Two Major flaws in the World's Computers*, New

11   York Times, January 4, 2018.

12   17.   The Meltdown and Spectre vulnerabilities allow hackers to take advantage of a

13   modern computer processor (or "CPU") performance feature, called speculative execution.

14   Speculative execution attempts to improve speed by executing multiple instructions at once (or

15   even in a different order than when entering the CPU). To increase performance, the CPU **predicts**

16   which path of a branch is most likely to be taken, and will speculatively continue execution down

17   that path even before the branch is completed. If the prediction is wrong, speculative execution is

18   rolled back in a way that is intended to be invisible to software.

19   18.   The design flaw exposes the processor's kernel to vulnerability. A kernel is the

20   most vital software component of a computer, which serves as a go between among programs and

21   computer components, such as the processor and the memory. One of the kernel's main tasks is to

22   prevent data in on program from being read by another when it should not.

23   19.   Meltdown and Spectre risk allows hackers to abuse speculative execution to access

24   privileged memory – including that of the kernel – from a less-privileged user process (such as a

25   malicious app running) on the device.

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     [4]   https://www.theregister.co.uk/2018/01/02/intel_cpu_design_flaw/ (last visited January 4,
28   2018).

1   20.   Because of the newly-disclosed defect, malicious users may gain access to sensitive

2 data that is supposed to be protected by the kernel, such as passwords, social security numbers,

3 credit card and banking information, and photographs. Significantly, unlike ordinary malware,

4 which runs like applications, hackers exploiting these kernel defects cannot be seen by antivirus

5 software.[5]

6   21.   As detailed below, the software patches for the design defect are wholly inadequate

7 to remedy the harm that is caused. The software "fix' for the Meltdown vulnerability" is expected

8 to reduce processor speed by between 5 and 30%, with some sources predicting the possibility of

9 even greater slowdown. There is no complete software patch for the Spectre vulnerability at this

10 time, and it is not clear whether any of the patches necessary to fix Spectre will slow processers.

11 **The Defective Intel Processor's Security Risks**

12   **"Meltdown" Risk**

13   22.   Meltdown is the name given to an exploitation technique known as CVE-2017-5754

14 or "rogue data cache load." Meltdown risk can enable a user process to read kernel memory.

15   23.   The Meltdown flaw affects virtually every microprocessor made by Intel since 1995.

16 As described on a website set up by Graz Technical University, representatives of which were

17 involved in uncovering the defects:

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19   Meltdown breaks the most fundamental isolation between user applications and the
    operating system. This attack allows a program to access the memory, and thus also
20   the secrets, of other programs and the operating system. ***If your computer has a
    vulnerable processor and runs an unpatched operating system, it is not safe to
21   work with sensitive information without the chance of leaking the information***.

22 (Emphasis supplied).[6]

23   24.   Unfortunately the fix for Meltdown risk comes at as significant cost in processor

24 performance. As the Register reported:

25   Programmers are scrambling to overhaul the open-source Linux kernel's virtual

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    [5]   http://nymag.com/selectall/2018/01/intel-chip-security-flaw-meltdown-spectre-what-to-
27 know-explainer.html

28   [6]   https://spectreattack.com/#faq-fix

memory system. Meanwhile, Microsoft is expected to publicly introduce the necessary changes to its Windows operating system in an upcoming Patch Tuesday: these changes were seeded to beta testers running fast-ring Windows Insider builds in November and December.

Crucially, these updates to both Linux and Windows will incur a performance hit on Intel products. The effects are still being benchmarked, however we're looking at *a ballpark figure of five to 30 per cent slow down*, depending on the task and the processor model. More recent Intel chips have features – such as PCID – to reduce the performance hit. [...]

Similar operating systems, such as Apple's 64-bit macOS, will also need to be updated – the flaw is in the Intel x86-64 hardware, and it appears a microcode update can't address it. *It has to be fixed in software at the OS level, or go buy a new processor without the design blunder.* [7]

25.   Meltdown risk thus significantly harms consumers who purchase or lease products with Intel Processors because it slows down processor speed so that it no longer meets the performance specifications promised to consumers at the time of purchase.

26.   The slowdown is unavoidable given the way that the Meltdown patch works. As the Register went on to explain:

The fix is to separate the kernel's memory completely from user processes using what's called Kernel Page Table Isolation, or KPTI. At one point, Forcefully Unmap Complete Kernel With Interrupt Trampolines, aka FUCKWIT, was mulled by the Linux kernel team, giving you an idea of how annoying this has been for the developers.

Whenever a running program needs to do anything useful – such as write to a file or open a network connection – it has to temporarily hand control of the processor to the kernel to carry out the job. To make the transition from user mode to kernel mode and back to user mode as fast and efficient as possible, the kernel is present in all processes' virtual memory address spaces, although it is invisible to these programs. When the kernel is needed, the program makes a system call, the processor switches to kernel mode and enters the kernel. When it is done, the CPU is told to switch back to user mode, and reenter the process. While in user mode, the kernel's code and data remains out of sight but present in the process's page tables.

Think of the kernel as God sitting on a cloud, looking down on Earth. It's there, and no normal being can see it, yet they can pray to it.

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[7]   https://www.theregister.co.uk/2018/01/02/intel_cpu_design_flaw/ (last visited January 4, 2018)

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These KPTI patches move the kernel into a completely separate address space, so it's not just invisible to a running process, it's not even there at all. Really, this shouldn't be needed, but clearly there is a flaw in Intel's silicon that allows kernel access protections to be bypassed in some way.

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The downside to this separation is that it is relatively expensive, time wise, to keep switching between two separate address spaces for every system call and for every interrupt from the hardware. These context switches do not happen instantly, and they force the processor to dump cached data and reload information from memory. This increases the kernel's overhead, and slows down the computer.

(Emphasis supplied).

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Your Intel-powered machine will run slower as a result.[8]

The Spectre vulnerability:

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27.   Spectre is a name covering two different exploitation techniques known as CVE-2017-5753 or "bounds check bypass," and CVE-2017-5715 or "branch target injection." These techniques potentially make items in kernel memory available to user processes by taking advantage of a delay in the time it may take the CPU to check the validity of a memory access call.

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28.   Spectre risk is similarly dangerous to users. As explained by researchers at the Graz University of Technology:

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Spectre breaks the isolation between different applications. It allows an attacker to trick error-free programs, which follow best practices, into leaking their secrets. In fact, the safety checks of said best practices actually increase the attack surface and may make applications more susceptible to Spectre.

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Spectre is harder to exploit than Meltdown, but it is also harder to mitigate. However, it is possible to prevent specific known exploits based on Spectre through software patches.[9]

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29.   As with Meltdown, it is unlikely that an antivirus program will detect attacks through Spectre.

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[8]   *Id.*

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[9]   https://spectreattack.com/#faq-fix

Intel's Knowledge of the Defects:

30.   Intel has long known of the design defect and the potential security risks (including

the Meltdown and Spectre vulnerabilities), but has done nothing about them. On January 4, 2018,

Morningstar reported, in an article titled, "Intel Struggled With Securities Flaws for Months," that:

> On June 1 last year, a member of Google's Project Zero security team notified Intel
> and other chip makers of the vulnerabilities. Even with the lead time, Intel and
> others are still trying to plug the security gaps. One issue is getting security updates
> to billions of devices. Another is that some security patches could slow
> performance, as the flaws affect chip features designed to speed up processors.[10]

31.   As reported in *The Washington Post*, Intel has now acknowledged receiving the

above information about the security risks from Google's Project Zero.[11]

32.   Based on what Intel knew of the design defect, its CEO, Brian Krzanich, sold $24

million of company stock – the maximum amount allowed by employment agreement – in October

2017.

33.   In fact, Intel either knew, or should have known, of these defects at least throughout

the Class Period (defined below). Had Intel been performing proper tests and security checks of its

processors, the vulnerabilities would have been evident. No fewer than three independent teams

working separately (teams from Google Project Zero, Cyberus Technology, and the Graz

University of Technology) were able to discover Meltdown and two independent teams (from

Google Project Zero and a group of universities) were able to discover Spectre.[12] Intel, with its

access to proprietary information, was in a much better position to discover the flaws than

independent researchers. And, as the defective processors were at the center of its business, it had

both the obligation and motivation to do so.

34.   Nonetheless, Intel has continued to sell the defective Intel Processors to this day. As

a result, Plaintiffs and Class members have been needlessly harmed.

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[10]   http://news.morningstar.com/all/dow-jones/us-markets/201801049039/intel-wrestled-with-chip-flaws-for-months.aspx (last visited January 4, 2018).

[11]   https://www.washingtonpost.com/news/the-switch/wp/2018/01/04/tech-companies-work-to-patch-major-computer-vulnerabilities-meltdown-and-spectre/?utm_term=.6ae0c9991e99

[12]   https://spectreattack.com/#faq-fix

Intel Acknowledges that Its Processors Are Defective

35.   Intel has admitted that its processors have significant security vulnerabilities, that it is not, itself, able to provide patches that fully remedy those vulnerabilities, and that the patches offered may slow processors down (though it downplays both its responsibility and the slowing effect). On January 3, 2017, Intel issued a press release stating that:

> Intel and other technology companies have been made aware of new security research describing software analysis methods that, when used for malicious purposes, have the potential to improperly gather sensitive data from computing devices that are operating as designed. …

> Recent reports that these exploits are caused by a "bug" or a "flaw" and are unique to Intel products are incorrect. Based on the analysis to date, many types of computing devices — with many different vendors' processors and operating systems — are susceptible to these exploits.

> Intel is committed to product and customer security and is working closely with many other technology companies, including AMD, ARM Holdings and several operating system vendors, to develop an industry-wide approach to resolve this issue promptly and constructively. Intel has begun providing software and firmware updates to mitigate these exploits. Contrary to some reports, any performance impacts are workload- dependent, and, for the average computer user, should not be significant and will be mitigated over time.

> . . .

> Check with your operating system vendor or system manufacturer and apply any available updates as soon as they are available. Following good security practices that protect against malware in general will also help protect against possible exploitation until updates can be applied.

36.   The position in which this leaves consumers is clear. They have processors that are slower and more vulnerable than what consumers bargained for. They have processors that are not adequate for their ordinary purpose. Plaintiffs and other Class members would not have purchased their processers, or would not have paid as much for them, had they known the truth.

CLASS ALLEGATIONS

37.   Plaintiffs bring this action as a class action on behalf of themselves and all others similarly situated for the purpose of asserting claims alleged in this Complaint on a common basis. Plaintiffs' proposed classes are defined under Federal Rules of Civil Procedure 23(b)(2) and (3).

1   Plaintiffs propose to act as representatives of the following Nationwide Class comprised of all

2   persons who purchased or leased Intel Processors or products containing Intel Processors in the

3   United States at any time since 2008 (the "Class Period")

4   38.   Plaintiffs also bring this action on behalf of two sub-classes: the Alaska Sub-Class,

5   comprised of all Class members who resided in Alaska when they purchased or leased Intel

6   Processors or products containing Intel Processers or who purchased or leased those products in

7   Alaska; and the Colorado Sub-Class, comprised of all Class members who resided in Colorado

8   when they purchased or leased Intel Processors or products containing Intel Processers or who

9   purchased or leased those products in Colorado. Collectively, the Class and the Sub-Classes are

10   referred to as the "Classes".

11   39.   Excluded from the Classes are Intel; any person, firm, trust, corporation, officer,

12   director, or other individual or entity in which Intel has a controlling interest or which is related to

13   or affiliated with Intel; and the legal representatives, agents, affiliates, heirs, successors-in-interest,

14   or assigns of each such excluded party.

15   40.   The Classes for whose benefit this action is brought are so numerous and

16   geographically dispersed that joinder of all members is impractical.

17   41.   Plaintiffs are unable to state the exact number of members of the Classes without

18   discovery of Intel's records but, on information and belief, allege that the Class members number in

19   the millions.

20   42.   Plaintiffs are typical of the members of the Classes in that their claims are based on

21   the exact same facts and legal theories as the claims of all other Class members.

22   43.   There are questions of law and fact common to the Classes which predominate over

23   any questions affecting only individual members. The common questions of law and fact affecting

24   the rights of all members of the Classes include the following:

25   a.   whether Defendant's Intel Processors are defective;

26   b.   whether Defendant's Intel Processors contain the Meltdown risk;

27   c.   whether Defendant's Intel Processors contain the Spectre risk;

28   d.   whether the remedies for either defect slow down processors;

CLASS ACTION COMPLAINT

1   e.   whether any slowdown is material;

2   f.   whether the remedies for either defect are effective;

3   g.   when Defendant knew of the defects;

4   h.   whether Defendant violated consumer protection laws by selling or leasing

5   the defective Intel Processors;

6   i.   whether Defendant breached any warranties in connection with the sale or

7   lease of the Intel Processors;

8   j.   whether Plaintiffs are entitled to injunctive relief; and

9   k.   the appropriate measure and amount of compensation for Plaintiffs and the

10   Classes.

11   44.   Each of these common questions of law and fact is identical for each and every

12 member of the Classes.

13   45.   Plaintiffs are members of the Classes they seek to represent, and their claims arise

14 from the same factual and legal basis as those of the other members of the Classes. Plaintiffs assert

15 the same legal theories as do all members of the Classes.

16   46.   Plaintiffs will thoroughly and adequately protect the interests of the Classes, having

17 obtained qualified and competent legal counsel to represent themselves and those similarly situated.

18   47.   The prosecution of separate actions by individual members of the Classes would

19 create a risk of inconsistent adjudications and would cause needless expenditure of judicial

20 resources, and as such prosecution on a Class basis is superior to other methods of adjudication.

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COUNT I
Breach of Implied Warranty
(Individually and Behalf of the Classes)

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23   48.   Plaintiffs incorporate by reference paragraphs 1 through 47 above as if fully set forth

24 herein.

25   49.   This claim is asserted on behalf of Plaintiffs and the Classes.

26   50.   Defendant is a "merchant" and the Intel Processors are "goods" as defined under the

27 Uniform Commercial Code.

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1   51.   Pursuant to U.C.C. § 2-314, an implied warranty that goods are merchantable is

2   implied in every contract for a sale of goods. Defendant impliedly warranted that the Intel

3   Processors were of a merchantable quality.

4   52.   Defendant breached the implied warranty of merchantability because the Intel

5   Processors were and are not of a merchantable quality due to the Defects, and the associated

6   problems and failures in the Intel Processors caused by the Defects.

7   53.   Plaintiffs' and each Class member's interactions with Defendant suffice to create

8   privity of contract between Plaintiffs and all other members of the Classes, on the one hand, and

9   Defendant, on the other hand; however, privity of contract need not be established nor is it required

10   because Plaintiffs and the absent Class members are intended third-party beneficiaries of contracts

11   between Defendant and its resellers, authorized dealers, and specifically, of Defendant's implied

12   warranties.

13   54.   Defendant's resellers, dealers, and distributors are intermediaries between

14   Defendant and consumers. These intermediaries sell Intel Processors to consumers and are not,

15   themselves, consumers of Intel Processors, and therefore have no rights against Defendant with

16   respect to Plaintiffs' and all other Class members' purchases of Intel Processors. Defendant's

17   warranties were designed to influence of consumers who purchased Intel Processors, including

18   products that contain them.

COUNT II
Breach of Express Warranty
(On Behalf of Plaintiffs and the Classes)

21   55.   Plaintiffs incorporate by reference paragraphs 1 through 47 above as if fully set forth

22   herein.

23   56.   This claim is asserted individually and on behalf of Plaintiffs and the Classes.

24   57.   Pursuant to U.C.C. § 2-313, an affirmation of fact, promise, or description made by

25   the seller to the buyer which relates to the goods and becomes a part of the basis of the bargain

26   creates an express warranty that the goods will conform to the affirmation, promise, or description.

27   58.   Defendant is a "merchant" and the Intel Processors are "goods" within the meaning

28   of the U.C.C.

59. Defendant represented that its processors were of particular speeds, which, after implementation of a patch necessary to protect against a security risk, they are not.

60. As a direct and proximate result of Defendant's breach of express warranties, Plaintiffs and all other Class members have suffered damages, injury in fact, and ascertainable loss in an amount to be determined at trial, including but not limited to repair and replacement costs, monetary losses associated with the slow processor speed, diminished value of their computer devices, and loss of use of or access to their computer devices.

COUNT III
NEGLIGENCE
(Individually and On Behalf of the Classes)

61. Plaintiffs incorporate by reference paragraphs 1 through 47 above as if fully set forth herein.

62. This claim is asserted individually and on behalf of Plaintiffs and the Classes.

63. Defendant Intel owed a duty of care to Plaintiffs and Class members, arising from the sensitivity of the information stored on computers and the foreseeability of the Intel Processor's data safety shortcomings resulting in an intrusion, to exercise reasonable care in safeguarding sensitive personal information. It also had a duty of care to ensure that its processors would function at the quality and speed levels it represented. This duty included, among other things, designing, maintaining, monitoring, and testing its processors, to ensure that Class members' data and computers were adequately secured from and that the processors would function as promised.

64. Defendant Intel owed a duty to Class members to implement processes that would detect a major defect in a timely manner.

65. Defendant Intel also owed a duty to disclose the material fact that Intel Processors were defective.

66. But for Intel's breach of its duties, Class members would not have purchased the defective Intel Processors or would not have paid as much for them as they did, and would not have been exposed to security risks and processor slowdowns.

1   67.   Plaintiffs and all other Class members were foreseeable victims of Defendant's

2 wrongdoing. Intel knew or should have known that Intel Processors would cause damages to Class

3 members.

4   68.   The damages to Plaintiffs and the Class members were a proximate, reasonably

5 foreseeable result of Defendant's breaches of its duties.

6   69.   Therefore, Plaintiffs and Class members are entitled to damages in an amount to be

7 proven at trial.

COUNT IV
Unjust Enrichment
(Individually and on Behalf of the Classes)

10   70.   Plaintiffs incorporate by reference paragraphs 1 through 47 above as if fully set forth

11 herein.

12   71.   This claim is asserted individually and on behalf of Plaintiffs and the Classes.

13   72.   Plaintiffs make this claim in the alternative to the warranty claims set forth above.

14   73.   As a result of Defendant's material deceptive advertising, marketing and/or sale of

15 its Intel Processors, Defendant was enriched at the expense of Plaintiffs and all other Nationwide

16 Class members through their purchase of the Intel Processors, because the Intel Processors did not

17 provide the benefits as represented.

18   74.   There is privity between Defendant on the one hand and Plaintiffs and all other

19 members of the Classes on the other hand because Defendant for the purchasers of its processors to

20 be consumers, like Plaintiffs and the Class Members.

21   75.   Under the circumstances, it would be against equity and good conscience to permit

22 Defendant to retain the ill-gotten benefits it received from Plaintiffs and the Class as the result of its

23 unfair and deceptive practices. Thus, it would be unjust or inequitable for Defendant to retain the

24 benefit without restitution to Plaintiffs and the other members of the Classes.

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COUNT V
Alaska Unfair Trade Practices and Consumer Protection Act
Alaska Stat. § 45.50.471, *et seq*
(By Plaintiff Rinn Individually and on behalf of the Alaska Sub-Class)

4   76.   Plaintiff Rinn incorporates by reference paragraphs 1 through 47 above as if fully set

5   forth herein.

6   77.   Plaintiff Rinn brings this action individually and on behalf of the Alaska Sub-Class.

7   78.   At all relevant times, Intel was prohibited by the Alaska Unfair Trade Practices and

8   Consumer Protection Act ("AUTPA"), Alaska Stat. § 45.50.471, *et seq.*, from engaging in unfair or

9   deceptive acts and/or practices in the conduct of any trade or commerce.

10   79.   AUTPA Section 45.50.471(b) prohibits:

11   (6) representing that goods or services are of a particular standard, quality, or grade,
         or that goods are of a particular style or model, if they are of another. . . .

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         (8) advertising goods or services with intent not to sell them as advertised. . . .
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         (11) engaging in any other conduct creating a likelihood of confusion or of
14   misunderstanding and that misleads, deceives, or damages a buyer or a competitor in
         connection with the sale or advertisement of goods or services. . . .
15
         (12)   using or employing deception, fraud, false pretense, false promise,
16   misrepresentation, or knowingly concealing, suppressing, or omitting a material fact
17   with intent that others rely upon the concealment, suppression, or omission in
         connection with the sale or advertisement of goods or services whether or not a
18   person has in fact been misled, deceived, or damaged . . . .

19
20   80.   Based on the conduct alleged in this Complaint, Intel engaged in unfair and deceptive

21 acts or practices in violation of AUTPA. In the course of its business, Intel sold defective Intel

22 Processors, representing them as having a particular quality which they did not, and with the intent

23 not to sell them as advertised. It intended consumers, including Class members, to be the ultimate

24 purchasers of the Intel Processors. It sold them without disclosing their true condition, the security

25 flaws to which they exposed consumers or the significant detriment to processor performance that

26 remedies required to address security risk would cause.

27
28

1 81. Intel also engaged in unlawful trade practices by employing deception, deceptive acts
2 or practices, misrepresentations or omissions of material facts when it knowingly engaged in the
3 above described actions.

4 82. At all relevant times, Intel knew or should have known that the Intel Processors were
5 defective, that the Intel Processors pose a serious risk to customers, exposing their personal sensitive
6 data to malicious interference, and that addressing the security risk would require significantly
7 reducing performance of the process.

8 83. Despite this knowledge, Intel represented that the Intel Processors had certain speeds,
9 which, unbeknownst to consumers, after addressing security risks, they would not maintain.

10 84. Processor speed is a critical feature for many purchasers, and indeed, is often listed
11 among the top features on any product specification sheet. Intel's misrepresentations and omissions
12 were material to reasonable consumers.

13 85. Intel's acts and practices caused substantial injury to Plaintiff Rinn and all other
14 Alaska Sub-Class members because: (a) they would not have purchased the Intel Processors, or
15 would not have purchased them on the same terms, if the true facts had been known; and (b) they
16 paid a price premium due to false representations about the Intel Processors.

17 86. Intel's unfair and/or deceptive practices directly, foreseeably, and proximately
18 caused Plaintiff Rinn and the Alaska Sub-Class to suffer an ascertainable loss, including
19 overpaying for the Intel Processors, including overpaying for the processors, being exposed to
20 security risks, and suffering processer slow down.

21 87. As a result of Intel's violation of AUTPA, Plaintiff Rinn and the other Alaska Sub-
22 Class members should be awarded damages, including punitive damages, in an amount to be
23 determined at trial pursuant to Alaska Sta. Ann § 45.50.531.

24 88. Concurrently with the filing of this Complaint, on January 5, 2018, Plaintiffs sent a
25 letter complying with Alaska Stat. § 45.40531(c) to the Alaska Attorney General.

26 ///

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28 ///

CLASS ACTION COMPLAINT
- 16 -

COUNT VI

Violation of the Colorado Consumer Protection Act, Colo. Rev. Stat. § 6-1-101, *et seq*.
(By Plaintiff Cappelli Individually and on Behalf of the Colorado Sub-Class)

89.   Plaintiff Cappelli incorporates by reference paragraphs 1 through 47 above as if fully set forth herein.

90.   Plaintiff Cappelli brings this action individually and on behalf of the Colorado Sub-Class.

91.   Chapter 6-1-101 of the Colorado Consumer Protection Act ("CCPA") generally governs deceptive trade practices within the State of Colorado. Colo. Rev. Stat. § 6-1-105.

92.   The CCPA governs trade practices affecting the sale of goods, services, or property. Colo. Rev. Stat. § 6-1-105.

93.   The CCPA outlaws "represent[ing] that goods, food, services, or property are of a particular standard, quality, or grade . . . if he knows or should know that they are of another." Colo. Rev. Stat. § 6-1-105.

94.   Plaintiff Cappelli is a consumer within the meaning of the CCPA.

95.   Defendant's false and misleading representations and omissions complained of herein are "trade practices" within the meaning of the CCPA.

96.   Defendant intended consumers, including Plaintiff Cappelli and all other Colorado Sub-Class members, to be the ultimate purchasers of its processors.

97.   Defendant actively misrepresented the quality of the Intel Processors.

98.   Defendant's knowing unfair or deceptive acts or practices tended to create a false impression in potential and actual consumers of Intel Processors, and in fact did deceive reasonable consumers, including Plaintiff Cappelli and all other members of the Colorado Sub-Class about the true value of an Intel Processor made by Defendant.

99.   Defendant knew or should have known that the falsity of its misrepresentations and the deceptiveness of its omissions.

100.   Plaintiff Cappelli and all other members of the Colorado Sub-Class suffered an ascertainable loss caused by Defendant's wrongdoing. Had they been aware of the truth, they would not have purchased the Intel Processors or would have paid less for them. Plaintiff Cappelli

1   and members of the Colorado Sub-Class did not receive the benefit of their bargain as a result of

2   Defendant's misconduct.

3   101.   Defendant's unlawful acts and practices complained of herein affect the public

4   interest.

5   102.   As a direct and proximate result of Defendant's violations of the CCPA, Plaintiff

6   Cappelli and all other members of the Colorado Sub-Class have suffered injury-in-fact or actual

7   damage.

8   103.   Defendant is liable to Plaintiff Cappelli and the Colorado Sub-Class for damages in

9   amounts to be proven at trial, including attorneys' fees, costs, and treble damages, as well as

10   injunctive relief enjoining Defendant's unfair and deceptive practices, and any other just and proper

11   relief under Colo. Rev. Stat. § 6-1-113.

12   <div align="center">**REQUESTS FOR RELIEF**</div>

13   WHEREFORE, Plaintiffs respectfully request that the Court enter judgment against

14   Defendant Intel as follows:

15   a.   permanently enjoining Intel from engaging in the wrongful conduct complained of

16   here;

17   b.   certifying the Nationwide Class and appointing Plaintiffs and their Counsel to

18   represent the Nationwide Class and the Alaska Sub-Class and Colorado Sub-Class;

19   c.   awarding actual damages, consequential damages, incidental damages, statutory

20   damages, punitive damages, pre- and post-judgment interest, litigation expenses and

21   court costs in an amount to be determined at trial;

22   d.   awarding Plaintiffs and the Classes their reasonable attorneys' fees and costs; and

23   e.   granting such other and further relief as the Court may deem just and proper.

24   <div align="center">**DEMAND FOR TRIAL BY JURY**</div>

25   Plaintiffs hereby demand a trial by jury.

26   DATED: January 5, 2018   **WOLF HALDENSTEIN ADLER**
                                  FREEMAN & HERZ LLP

27   RACHELE R. RICKERT

28   */s/ Rachele R. Rickert*
                         RACHELE R. RICKERT

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Counsel for Plaintiffs

INTEL:24363

CLASS ACTION COMPLAINT
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CIVIL COVER SHEET

The JS-CAND 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved in its original form by the Judicial Conference of the United States in September 1974, is required for the Clerk of Court to initiate the civil docket sheet. *(SEE INSTRUCTIONS ON NEXT PAGE OF THIS FORM.)*

I. (a) PLAINTIFFS
Edward Rinn and Reno Cappelli, on behalf of themselves and all others similarly situated

(b) County of Residence of First Listed Plaintiff   North Star Borough, AK
(EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorneys *(Firm Name, Address, and Telephone Number)*
Rachele R. Rickert (190634), WOLF HALDENSTEIN ADLER FREEMAN & HERZ LLP
750 B St., Suite 2770, San Diego, CA 92101; (619) 239-4599

DEFENDANTS
Intel Corporation

County of Residence of First Listed Defendant
(IN U.S. PLAINTIFF CASES ONLY)

NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE TRACT OF LAND INVOLVED.

Attorneys *(If Known)*

II. BASIS OF JURISDICTION *(Place an "X" in One Box Only)*

- ☐ 1 U.S. Government Plaintiff
- ☐ 2 U.S. Government Defendant
- ☐ 3 Federal Question *(U.S. Government Not a Party)*
- ☒ 4 Diversity *(Indicate Citizenship of Parties in Item III)*

III. CITIZENSHIP OF PRINCIPAL PARTIES *(Place an "X" in One Box for Plaintiff and One Box for Defendant)*
(For Diversity Cases Only)

	PTF	DEF		PTF	DEF
Citizen of This State	☐ 1	☐ 1	Incorporated *or* Principal Place of Business In This State	☐ 4	☒ 4
Citizen of Another State	☒ 2	☐ 2	Incorporated *and* Principal Place of Business In Another State	☐ 5	☐ 5
Citizen or Subject of a Foreign Country	☐ 3	☐ 3	Foreign Nation	☐ 6	☐ 6

IV. NATURE OF SUIT *(Place an "X" in One Box Only)*

CONTRACT	TORTS	FORFEITURE/PENALTY	BANKRUPTCY	OTHER STATUTES
110 Insurance	**PERSONAL INJURY**	625 Drug Related Seizure of Property 21 USC § 881	422 Appeal 28 USC § 158	375 False Claims Act
120 Marine	310 Airplane	690 Other	423 Withdrawal 28 USC § 157	376 Qui Tam (31 USC § 3729(a))
130 Miller Act	315 Airplane Product Liability	**LABOR**	**PROPERTY RIGHTS**	400 State Reapportionment
140 Negotiable Instrument	320 Assault, Libel & Slander	710 Fair Labor Standards Act	820 Copyrights	410 Antitrust
150 Recovery of Overpayment Of Veteran's Benefits	330 Federal Employers' Liability	720 Labor/Management Relations	830 Patent	430 Banks and Banking
151 Medicare Act	340 Marine	740 Railway Labor Act	835 Patent—Abbreviated New Drug Application	450 Commerce
152 Recovery of Defaulted Student Loans (Excludes Veterans)	345 Marine Product Liability	751 Family and Medical Leave Act	840 Trademark	460 Deportation
153 Recovery of Overpayment of Veteran's Benefits	350 Motor Vehicle	790 Other Labor Litigation	**SOCIAL SECURITY**	470 Racketeer Influenced & Corrupt Organizations
160 Stockholders' Suits	355 Motor Vehicle Product Liability	791 Employee Retirement Income Security Act	861 HIA (1395ff)	480 Consumer Credit
190 Other Contract	360 Other Personal Injury	**IMMIGRATION**	862 Black Lung (923)	490 Cable/Sat TV
☒ 195 Contract Product Liability	362 Personal Injury -Medical Malpractice	462 Naturalization Application	863 DIWC/DIWW (405(g))	850 Securities/Commodities/ Exchange
196 Franchise		465 Other Immigration Actions	864 SSID Title XVI	890 Other Statutory Actions
			865 RSI (405(g))	891 Agricultural Acts

PERSONAL INJURY
365 Personal Injury – Product Liability
367 Health Care/ Pharmaceutical Personal Injury Product Liability
368 Asbestos Personal Injury Product Liability

PERSONAL PROPERTY
370 Other Fraud
371 Truth in Lending
380 Other Personal Property Damage
385 Property Damage Product Liability

CIVIL RIGHTS
440 Other Civil Rights
441 Voting
442 Employment
443 Housing/ Accommodations
445 Amer. w/Disabilities– Employment
446 Amer. w/Disabilities–Other
448 Education

PRISONER PETITIONS
HABEAS CORPUS
463 Alien Detainee
510 Motions to Vacate Sentence
530 General
535 Death Penalty
OTHER
540 Mandamus & Other
550 Civil Rights
555 Prison Condition
560 Civil Detainee– Conditions of Confinement

FEDERAL TAX SUITS
870 Taxes (U.S. Plaintiff or Defendant)
871 IRS–Third Party 26 USC § 7609

893 Environmental Matters
895 Freedom of Information Act
896 Arbitration
899 Administrative Procedure Act/Review or Appeal of Agency Decision
950 Constitutionality of State Statutes

REAL PROPERTY
210 Land Condemnation
220 Foreclosure
230 Rent Lease & Ejectment
240 Torts to Land
245 Tort Product Liability
290 All Other Real Property

V. ORIGIN *(Place an "X" in One Box Only)*

- ☒ 1 Original Proceeding
- ☐ 2 Removed from State Court
- ☐ 3 Remanded from Appellate Court
- ☐ 4 Reinstated or Reopened
- ☐ 5 Transferred from Another District *(specify)*
- ☐ 6 Multidistrict Litigation–Transfer
- ☐ 8 Multidistrict Litigation–Direct File

VI. CAUSE OF ACTION
Cite the U.S. Civil Statute under which you are filing *(Do not cite jurisdictional statutes unless diversity)*:
28 U.S.C. § 1332(d)
Brief description of cause:
Breach of Implied & ExpressWarranty, Negligence, Unjust Enrichment, Violations of Alaska Stat. § 45.50.471, Colo. Rev. Stat. § 6-1-101

VII. REQUESTED IN COMPLAINT:
✓ CHECK IF THIS IS A **CLASS ACTION** UNDER RULE 23, Fed. R. Civ. P.
DEMAND $
CHECK YES only if demanded in complaint:
JURY DEMAND: ☒ Yes   ☐ No

VIII. RELATED CASE(S), IF ANY *(See instructions):*
JUDGE: Hon. Susan van Keulen
DOCKET NUMBER: 3:18-cv-00074, 5:18-cv-00046-SVK

IX. DIVISIONAL ASSIGNMENT (Civil Local Rule 3-2)
(Place an "X" in One Box Only)
- ☐ SAN FRANCISCO/OAKLAND
- ☒ SAN JOSE
- ☐ EUREKA-MCKINLEYVILLE

DATE 01/05/2018

SIGNATURE OF ATTORNEY OF RECORD   /s/ Rachele R. Rickert

INSTRUCTIONS FOR ATTORNEYS COMPLETING CIVIL COVER SHEET FORM JS-CAND 44

Authority For Civil Cover Sheet. The JS-CAND 44 civil cover sheet and the information contained herein neither replaces nor supplements the filings and service of pleading or other papers as required by law, except as provided by local rules of court. This form, approved in its original form by the Judicial Conference of the United States in September 1974, is required for the Clerk of Court to initiate the civil docket sheet. Consequently, a civil cover sheet is submitted to the Clerk of Court for each civil complaint filed. The attorney filing a case should complete the form as follows:

I. a) **Plaintiffs-Defendants.** Enter names (last, first, middle initial) of plaintiff and defendant. If the plaintiff or defendant is a government agency, use only the full name or standard abbreviations. If the plaintiff or defendant is an official within a government agency, identify first the agency and then the official, giving both name and title.

b) **County of Residence.** For each civil case filed, except U.S. plaintiff cases, enter the name of the county where the first listed plaintiff resides at the time of filing. In U.S. plaintiff cases, enter the name of the county in which the first listed defendant resides at the time of filing. (NOTE: In land condemnation cases, the county of residence of the "defendant" is the location of the tract of land involved.)

c) **Attorneys.** Enter the firm name, address, telephone number, and attorney of record. If there are several attorneys, list them on an attachment, noting in this section "(see attachment)."

II. **Jurisdiction.** The basis of jurisdiction is set forth under Federal Rule of Civil Procedure 8(a), which requires that jurisdictions be shown in pleadings. Place an "X" in one of the boxes. If there is more than one basis of jurisdiction, precedence is given in the order shown below.

(1) United States plaintiff. Jurisdiction based on 28 USC §§ 1345 and 1348. Suits by agencies and officers of the United States are included here.

(2) United States defendant. When the plaintiff is suing the United States, its officers or agencies, place an "X" in this box.

(3) Federal question. This refers to suits under 28 USC § 1331, where jurisdiction arises under the Constitution of the United States, an amendment to the Constitution, an act of Congress or a treaty of the United States. In cases where the U.S. is a party, the U.S. plaintiff or defendant code takes precedence, and box 1 or 2 should be marked.

(4) Diversity of citizenship. This refers to suits under 28 USC § 1332, where parties are citizens of different states. When Box 4 is checked, the citizenship of the different parties must be checked**. (See Section III below; **NOTE: federal question actions take precedence over diversity cases.**)

III. **Residence (citizenship) of Principal Parties.** This section of the JS-CAND 44 is to be completed if diversity of citizenship was indicated above. Mark this section for each principal party.

IV. **Nature of Suit.** Place an "X" in the appropriate box. If the nature of suit cannot be determined, be sure the cause of action, in Section VI below, is sufficient to enable the deputy clerk or the statistical clerk(s) in the Administrative Office to determine the nature of suit. If the cause fits more than one nature of suit, select the most definitive.

V. **Origin.** Place an "X" in one of the six boxes.

(1) Original Proceedings. Cases originating in the United States district courts.

(2) Removed from State Court. Proceedings initiated in state courts may be removed to the district courts under Title 28 USC § 1441. When the petition for removal is granted, check this box.

(3) Remanded from Appellate Court. Check this box for cases remanded to the district court for further action. Use the date of remand as the filing date.

(4) Reinstated or Reopened. Check this box for cases reinstated or reopened in the district court. Use the reopening date as the filing date.

(5) Transferred from Another District. For cases transferred under Title 28 USC § 1404(a). Do not use this for within district transfers or multidistrict litigation transfers.

(6) Multidistrict Litigation Transfer. Check this box when a multidistrict case is transferred into the district under authority of Title 28 USC § 1407. When this box is checked, do not check (5) above.

(8) Multidistrict Litigation Direct File. Check this box when a multidistrict litigation case is filed in the same district as the Master MDL docket.

Please note that there is no Origin Code 7. Origin Code 7 was used for historical records and is no longer relevant due to changes in statute.

VI. **Cause of Action.** Report the civil statute directly related to the cause of action and give a brief description of the cause. **Do not cite jurisdictional statutes unless diversity.** Example: U.S. Civil Statute: 47 USC § 553. Brief Description: Unauthorized reception of cable service.

VII. **Requested in Complaint.** Class Action. Place an "X" in this box if you are filing a class action under Federal Rule of Civil Procedure 23.

Demand. In this space enter the actual dollar amount being demanded or indicate other demand, such as a preliminary injunction.

Jury Demand. Check the appropriate box to indicate whether or not a jury is being demanded.

VIII. **Related Cases.** This section of the JS-CAND 44 is used to identify related pending cases, if any. If there are related pending cases, insert the docket numbers and the corresponding judge names for such cases.

IX. **Divisional Assignment.** If the Nature of Suit is under Property Rights or Prisoner Petitions or the matter is a Securities Class Action, leave this section blank. For all other cases, identify the divisional venue according to Civil Local Rule 3-2: "the county in which a substantial part of the events or omissions which give rise to the claim occurred or in which a substantial part of the property that is the subject of the action is situated."

Date and Attorney Signature. Date and sign the civil cover sheet.